Fact Sheet: Docket D2016.5.39, QF-1 Standard Rates & Tariffs

Overview: On June 22 The Montana Public Service Commission voted to shorten the duration of electricity supply arrangements entered into by NorthWestern Energy on behalf of customers to a maximum of 10 years. This decision occurred in docket D2016.5.39 to establish the QF-1 standard rate and contract term available to small, renewable energy projects up to 3 megawatts (MW) in size called Qualifying Facilities (QFs). However, pursuant to federal law's requirement that rates for purchases not be discriminatory the Commission's action applies equally to power purchase agreements with independent generators, as well as future acquisitions by NorthWestern Energy.

New rates for Qualifying Facilities up to 3 megawatts in size under a 10 year PPA:

Off-Peak Hours	\$29.82 per megawatt hour
On-Peak Hours	\$38.92 per megawatt hour

*The rates in this table are based on market prices in NorthWestern's 2015 Resource Plan and are for illustrative purposes only. In order to comply with the Commission's order NorthWestern will calculate new rates based on July 2017 prices in its upcoming compliance filing.

*On-Peak Hours are defined as weekday and Saturday hours ending 0700-2200 for the months of January, February, July, August, and December

Legal Requirements under PURPA: The Public Utilities Regulatory Policy Act, passed at the height of the 1970's energy crises, was intended to promote certain forms of renewable and cogeneration by providing a market for independent power producers to sell their electricity. The law requires utilities like NorthWestern Energy to purchase power from QFs up to 80 MW in size at the same price the utility would otherwise pay for energy and capacity from market purchases or new generating resources, known in the industry as the "avoided cost." Although PURPA¹ and the state implementing statute "Mini PURPA" Mont. Code Ann. §§ 69-3-601 to -604, require long term contracts for QFs these provisions are paired with a requirement that ratepayers remain unaffected by the purchase of QF power.

What follows is a discussion of the major factors impacting the calculation of NorthWestern Energy's "avoided cost" in docket D2016.5.39:

Rates: The rate paid to QFs is broken into two components: "avoided energy costs" and "avoided capacity costs"

Avoided energy cost: To establish NorthWestern's "avoided energy costs" the Commission looked at what it would cost the utility to operate its projected least cost resource, in this case a Combined Cycle Combustion Turbine (CCCT) set to come online in 2025, over the life of the PPA. The CCCT's perunit variable and energy related fixed costs establish the avoided energy costs in heavy-load hours. In

¹ Pub.L. No. 95-617, 92 Stat. 3117 (1978), codified primarily in 16 U.S.C. §§ 796, 791a, 823a, 824a, 824d, 824i-824k, 824(b), 824(e), 825d, 2601-2603, 2611-2644, 2701-2708 and 2645.

light-load hours and in heavy load hours before the 2025 (when the CCCT comes on line), projected market prices set the avoided energy costs.

Avoided Capacity Costs: The Commission struggled to balance the strong performance of solar on hot summer days with its weak contribution on winter nights. To calculate the capacity contribution of solar the Commission relied on a well-established methodology approved by the independent Southwest Power Pool. The SPP method evaluates the production of solar in the top 22 hours of each peak load month for a 5 year period. The Commission's calculations under the SPP method shows that a capacity value of 6.1% accurately reflects the capacity contribution of solar during periods of peak energy demand.

The low rates established by the Commission in this docket reflect a market for electricity in the West that is massively oversupplied. In some instances, power from wind and solar are so plentiful that states are seeing negative energy prices. Until prices recover it may not be economical to build any energy projects in Montana whether wind, solar, or gas.

Contract Length: The PSC's decision to reduce QF contracts to a maximum of 10 years with a rate recalculation at the half-life of the contract follows concerns raised by the Montana Consumer Counsel (MCC) that 25-year fixed price contracts were "excessively risky" for consumers. The MCC argued that basing rates on 25-year forecasts of future market prices shifts all of the risk that these predictions could be wrong to consumers, and not investors in power projects.

Market price forecasts are significant inputs impacting the calculation of a utility's avoided cost and the rates paid to QFs. In order to calculate a rate for a 25 year power purchase agreement the Commission must rely on price escalators to estimate prices beyond the point where actual market transaction data exists. The use of escalators builds in an expectation of future price increases, which may or may not come true if the current trend of electricity oversupply continues. Shorter contracts protect both consumers and QFs by ensuring that the rates paid to developers more accurately reflect the actual cost of generating electricity.

The Commission is not alone in this concern. Numerous other states, including North Carolina and Idaho have found that contracts shorter than 20 years protect ratepayers, while providing developers with the certainty that they need to finance projects. In addition, neither federal law, state statute, nor the Federal Energy Regulatory Commission's rules contain a precise definition of what constitutes a long-term contract.

Symmetrical Treatment for NorthWestern & QFs: The Commission recognizes that the concept of "forecasting error" applies equally to utility resources, as well as QFs. Therefore, going forward, any resource that NorthWestern acquires or contracts with will be held to the same standard. Thus, if NorthWestern buys or builds a power plant or enters a contract with a power supplier for the purposes of serving customers it must demonstrate that the cost of the resource's energy and capacity are justified relative to a 10-year projection of market prices or the cost of alternative 10-year sources of energy and capacity.